

REMARKS

The undersigned thanks Examiner Rickman for the courtesies extended during the interview of October 24, 2006. The Examiner said that the above Amendment should overcome the pending anticipation rejection.

Claim 21 has been rejected under 35 USC 112, first paragraph. This rejection is respectfully traversed.

The Examiner states that that specification discloses a sputtered layer formed from NiP containing 15-30 at% Ni. Accordingly, claim 21 has been amended.

Claims 16 and 18-20 were rejected as being anticipated by or, in the alternative, obvious over Nanis. This rejection is respectfully traversed.

As explained by the Examiner, Nanis discloses a magnetic recording medium having a non-magnetic substrate, *a sputtered Ni layer*, an electrolessly deposited NiP layer and a magnetic recording layer thereon. However, Nanis fails to disclose "a composite nickel-containing coating comprising a sputter deposited nickel-containing layer *comprising NiP* and an electrolessly deposited nickel-containing layer" as recited in claim 16. In fact, because Nanis uses a sputtered Ni layer as a nucleating layer for the growth of NiP layer, it states the following in column 5, lines 12-23:

The most important requirements are the ability to nucleate Ni--P plating upon immersion in the electroless nickel bath and to provide non-magnetic behavior. Pure nickel is an effective nucleating layer and, if the aluminum alloy surface is smooth, the growth of Ni--P will continue as a smooth surface. Although pure nickel is magnetic, calculation shows that the layer will be sufficiently remote from the field of the read-write head so as to be of negligible influence if *the Ni--P layer thickness is 150 microinches or greater*. Pure cobalt, pure iron and mixtures of Co,

Fe and Ni will also be effective nucleating materials. [Emphasis added.]

In short, Nanis only contemplates using a *pure nickel* layer (not a NiP layer) as the sputter deposited nucleating layer. As pure nickel is magnetic, Nanis states that the thickness of the NiP layer should be 150 microinches (3.8 microns) or greater. On the other hand, claim 16 recites that the sputter deposited layer comprises NiP, which is a non-magnetic layer. As a result, as shown in Example 1 of the specification, the thickness of the electrolessly deposited NiP over the sputter deposited NiP layer could have a thickness of about 1 micron or less, as stated by the Examiner and recited in new claim 23.

The Examiner also states that the NiP layer of Nanis would inherently have a surface roughness (Ra) of less than about 10 Å. Applicants respectfully submit that claim 16 recites that “the top surface of the composite nickel-containing coating is a *non-polished* surface and has a surface roughness (Ra) of less than about 10 Å.” Nanis clearly states in column 6, lines 48-52, that “[t]he remaining steps of the process are shown in FIG. 3 and are identical to the steps followed in the prior art, FIG. 2. *Wet chemical addition of Ni--P deposit is followed by polishing* and the vacuum sputter deposition at chromium, magnetic cobalt alloy and carbon.” [Emphasis added.] Clearly, Nanis does not disclose that “the top surface of the composite nickel-containing coating is a *non-polished* surface and has a surface roughness (Ra) of less than about 10 Å” as recited in claim 16. The Examiner cited column 7, lines 1-25 of Nanis to argue that Nanis produces “a smooth NiP surface thereby eliminating the need for polishing.” Please see page 4, lines 2 and 3. In fact, a careful reading of Nanis indicates that Nanis does *not* eliminate the need for polishing; instead Nanis states that “[a]s experience is gained with the present process, it may be possible to completely bypass polishing. *For the present, some polishing is*

retained in the process in order to provide extra assurance of a smooth finish and also to produce a metallurgical surface condition comparable to present practice.” See column 7, lines 22-28, of Nanis; emphasis added.

Furthermore, inherency requires that the claimed missing descriptive matter is *necessarily* present in the thing described in the reference. “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is *not* sufficient.’” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted; emphasis added).

If the structure and composition of the layers of Nanis were identical to those of the examples of the specification, then it might have been reasonable to allege that the NiP layer of Nanis would inherently have a surface roughness (Ra) of less than about 10 Å as alleged by the Examiner. However, as Nanis fails to disclose “a composite nickel-containing coating comprising a sputter deposited nickel-containing layer comprising NiP and an electrolessly deposited nickel-containing layer” as recited in claim 16, there is simply no factual or technical basis to support the Examiner’s allegation that the NiP layer of Nanis would inherently have a surface roughness (Ra) of less than about 10 Å.

In light of this Amendment, a Notice of Allowance is respectfully solicited.

In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing attorney docket no. **146712011100**.

Dated: December 12, 2006

Respectfully submitted,
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